

AMENDMENT UNDER 37 C.F.R. § 1.111
Appln. No. 10/785,077
Docket No. Q78870

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An ignition apparatus for an internal combustion engine comprising:

a casing;

an ignition coil having an iron core disposed in said casing to form a closed magnetic circuit, and a primary coil and a secondary coil installed on a part of said iron core;

a power switch for controlling electric power to be supplied to said primary coil;

a low-voltage side connector having a terminal electrically connected with said power switch; and

a high-voltage side connector having a high-voltage terminal electrically connected with said secondary coil;

wherein said casing comprises:

a casing main body that accommodates said part of said iron core, said primary coil, said secondary coil and said power switch; and

a cover integrally formed with said casing main body for covering a part of said iron core located outside of said casing main body;

wherein a same chamber of said casing main body accommodates said part of said iron core, said primary coil, said secondary coil, and said power switch.

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2. (original): The ignition coil apparatus for an internal combustion engine as set forth in claim 1, wherein said cover is provided with a fastening hole having a fastening bearing surface for fastening said cover to a fixed part, and said high-voltage side connector and said low-voltage side connector are disposed in parallel with respect to said fastening bearing surface of said fastening hole and in an overlapped relation with each other when viewed along the fastening bearing surface.

3. (original): The ignition coil apparatus for an internal combustion engine according to claim 2, wherein said fastening hole are formed through said iron core.

4. (original): The ignition coil apparatus for an internal combustion engine as set forth in claim 3, wherein a bush covering an inner wall-surface of said iron core fitted in said fastening hole.

5. (original): The ignition coil apparatus for an internal combustion engine as set forth in claim 1, wherein a notch portion, into which said low-voltage side connector is fitted, is formed in said casing, and a seal unit for preventing an electrically insulating thermosetting resin poured into said casing from leaking outside therefrom is disposed between said notch portion and said low-voltage side connector.

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6. (original): The ignition coil apparatus for an internal combustion engine as set forth in claim 5, wherein said seal unit includes protrusions formed on said notch portion, and grooves formed in said low-voltage side connector so as to engage with said protrusions.

7. (original): The ignition coil apparatus for an internal combustion engine as set forth in claim 6, wherein said notch portion has a V-shaped configuration diverging toward an opening side thereof.

8. (new): An ignition apparatus for an internal combustion engine comprising:
a casing;
an ignition coil having an iron core disposed in said casing to form a closed magnetic circuit, and a primary coil and a secondary coil installed on a part of said iron core;
a power switch for controlling electric power to be supplied to said primary coil;
a low-voltage side connector having a terminal electrically connected with said power switch; and
a high-voltage side connector having a high-voltage terminal electrically connected with said secondary coil;
wherein said casing comprises:
a casing main body that accommodates said part of said iron core, said primary coil, said secondary coil and said power switch; and

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a cover integrally formed with said casing main body for covering a part of said iron core located outside of said casing main body;

wherein a notch portion, into which said low-voltage side connector is fitted, is formed in said casing, and a seal unit for preventing an electrically insulating thermosetting resin poured into said casing from leaking outside therefrom is disposed between said notch portion and said low-voltage side connector.

9. (new): The ignition coil apparatus for an internal combustion engine as set forth in claim 8, wherein said seal unit includes protrusions formed on said notch portion, and grooves formed in said low-voltage side connector so as to engage with said protrusions.

10. (new): The ignition coil apparatus for an internal combustion engine as set forth in claim 9, wherein said notch portion has a V-shaped configuration diverging toward an opening side thereof.